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10/017,183	02/19/2003	Coach Wei	NW-102	5883

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NEWTON, MA 02466

EXAMINER	
ZHEN, LI B	

ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,183	WEI, COACH	
	Examiner	Art Unit	
	Li B. Zhen	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The preliminary amendment submitted on 02/19/2003 presents claims 1 – 21 for examination; therefore, claims 1 – 21 are pending in the application.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing address of each inventor. A mailing address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing address should include the ZIP Code designation. The mailing address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

It does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either an application data sheet or supplemental oath or declaration.

Specification

3. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code [p. 10, line 5]. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

5. The amendment filed 02/19/2003 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: p. 2, line 1 – p. 5, line 8 of the specification.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claim 19 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

Claim 19 recites a system comprising an API, presentation layer and business logic layer. These application programming interfaces and logic layers are considered as software. The system of claim 19 does not define any specific hardware. Therefore, the system is not tangible embodied in a manner so as to be executable.

8. Claims 20 and 21 are rejected under 35 U.S.C. 101 based on the theory that the claim is directed to neither a "process" nor a "machine," but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only (Ex parte Lyell).

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. **Claims 1 - 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

11. Claims 20 and 21 recites both a method and a system. A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph (Ex parte Lyell).

12. The following limitations lack antecedent basis in the claims:

a. "the business logic", "the application", "the backend server" and "the user interface" claim 1, lines 1 - 2;

b. "the graphics user interface API", claim 1, lines 3 – 4;

c. "the network-aware GUI API", claim 1, line 8;

d. "that device", "the server", claim 1, lines 15 - 22;

e. "the presentation layer", "the business logic layer", claim 19, lines 4 - 5;

f. "the supporting infrastructure", "the application' user interface information", "the client-side device", claim 19, lines 7-8;

g. "the server", claim 19, line 10;

h. "the network", "the application", "the client side", claim 20, lines 1 – 3;

i. "this network-aware GUI API", "the JAVA application", "the server-side", "the network-aware API", "the applications", claim 20, lines 6 – 8;

j. "these messages", "the user interface", "the client device", "the client program", "the user", claim 20, lines 10 – 13;

k. "the system server's program", claim 20, line 15;

l. "the same application", claim 21, line 1;

m. "the system's server-side program", "the presentation information", claim 21, line 6;

n. "the application's user interface", claim 21, line 8;

o. "these messages", "the user interface", claim 21, lines 12 – 13; and

p. "the server", "the system's server program", claim 21, lines 17 – 18.

Claim Objections

13. Claims 1 – 21 objected to because of the following informalities:

q. Claims 1, 20 and 21 include multiple sentences. MPEP 608.01(m) states that each claim should begin with a capital letter and end with a period and periods may not be used elsewhere in the claims except for abbreviations

r. Claims 2 – 6, 11, 12 and 17 end with a semicolon. MPEP 608.01(m) states each claim should begin with a capital letter and end with a period.

Appropriate correction is required.

DETAILED ACTION

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

15. **Claims 1-8, 11 and 13-21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,901,554 to Bahrs et al. [hereinafter referred to as Bahrs].**

16. As to claim 1, Bahrs teaches a method for delivering applications over a network in which the business logic of the application [col. 14, lines 23 – 36] is running on the backend server [a server 104; col. 12, lines 16 – 43], the user interface [ViewController 702 is an interface that defines an interface for a class that will be a single Component containing user interface components; col. 18, line 64 - col. 19, line 5] of the application is rendered on a client-device [clients 108, 110, and 112; col. 12, lines 16 – 43] who is connected to the backend server via a network [Distributed data processing system 100

is a network of computers; col. 12, lines 3 – 16], the Graphics User Interface API [col. 14, lines 36 – 66] and event processing API of the application [the control are event listeners 414; col. 14, lines 23 – 36] is implemented to be network-aware instead of being local machine centric as traditional GUI APIs [col. 17, lines 25 – 39]:

running an application on the backend server [Enterprise JavaBean session bean instance from an application server using Java's RMI and Java's Reflection capabilities; col. 28, lines 43 - 67], The application in turn invokes GUI API to present its user interface, the network-aware GUI API is invoked [ViewController 702 is an interface that defines an interface for a class that will be a single Component containing user interface components; col. 18, line 64 - col. 19, line 5];

translating the application's presentation layer information into a pre-determined format based messages which describes the Graphical User Interface [Operations from the ViewControllerBaseImpl class are translated into corresponding operations from the XYZ class; col. 38, line 62 - col. 39, line 8], event processing registries and other related information [object handling placement of components will register as a listener for notifications to place objects on the screen; col. 24, lines 36 – 59], Such information describes the presentation layer of the application in a high level, object level, which minimizes network traffic [col. 36, line 65 - col. 37, line 15];

sending such messages to the client device via a network [col. 41, line 66 – col. 42, line 19];

processing the messages and rendering the user interface by a client-side program [If the major code for the TopEvent is message, then the message is displayed for the application (step 8418); col. 49, lines 25 – 33], which delivers the best possible user experience for that device according to the capability of the specific client device [col. 32, line 54 - col. 33, line 6], transmitting necessary user input and client-side events back to the server by the client-side program [col. 36, lines 17 – 28] via a predetermined protocol [col. 14, lines 36 – 65];

processing the user input and client-side events on the backend server [col. 26, lines 1 – 20], translating such events and inputs as if they were locally generated [ViewEvents generated in the ViewControllers 12302 being handled by the

ApplicationMediator 12304 and translated into appropriate RequestEvents; col. 65, lines 23 – 41], and sending such translated events and inputs to the application for processing [RequestEvents are passed on to the destination 12308 via the transported 12306; col. 65, lines 23 – 41];

encoding and routing the output of the application to the client device using the predetermined messaging format [col. 16, line 57 – col. 17, line 15]; and

further processing the output by the client-side program to refresh the Graphical User Interface thereat [the return data may be sent to ViewController 502 to refresh the view displayed on the screen to the user; col. 16, line 57 – col. 17, line 15].

17. As to claim 2, Bahrs teaches Graphics User Interface API and event processing API is Java Foundation Classes (including Swing, AWT) [col. 14, lines 36 – 65].

18. As to claim 3, Bahrs teaches the client-side program is a computer program based on Operating System's API, such as Windows API, X Windows API [col. 34, lines 30 – 39].

19. As to claim 4, Bahrs teaches the client-side program is a wireless device program written using the device's Operating System's API, such as Palm API and Windows CE API [col. 15, lines 26 – 52].

20. As to claim 5, Bahrs teaches the client-side program is Java program written using Java API [col. 14, lines 36 – 65].

21. As to claim 6, Bahrs teaches the JAVA API is AWT, Personal Java, Java 2 Micro Edition based GUI API or Java Swing [col. 14, lines 36 – 65].

22. As to claim 7, Bahrs teaches the predetermined protocol is HTTP [JTC has natural support for multiple protocols, such as, for example IIOP, RMI, Sockets, HTTP, HTTPs, and Files; col. 15, lines 26 – 52].

23. As to claim 8, Bahrs teaches the predetermined protocol is HTTPS [JTC has natural support for multiple protocols, such as, for example IIOP, RMI, Sockets, HTTP, HTTPs, and Files; col. 15, lines 26 – 52].

24. As to claim 11, Bahrs teaches the predetermined messaging format is based on XML [col. 17, lines 25 – 38].

25. As to claim 13, Bahrs teaches the network is the Internet [col. 12, lines 16 – 43].

26. As to claim 14, Bahrs teaches the network is a local area network [col. 12, lines 16 – 43].

27. As to claim 15, Bahrs teaches the local area network is a bandwidth-limited slow speed network [col. 1, line 58 – col. 2, line 15].

28. As to claim 16, Bahrs teaches the network includes a wireless network [col. 15, lines 25 – 52].

29. As to claim 17, Bahrs teaches the client device is selected from the group consisting of workstations, desktops, laptops, PDAs, wireless devices and other edge devices [col. 15, lines 25 – 52].

30. As to claim 18, Bahrs teaches the server and the client device are combined into one entity [col. 17, lines 61 – 67].

31. As to claim 19, Bahrs teaches a server-side API based programming model for network programming [col. 21, lines 20 – 42], which frees or greatly simplifies the complexity of network [Distributed data processing system 100 is a network of

computers; col. 12, lines 3 – 16] programming by freeing developers from client-side [clients 108, 110, and 112; col. 12, lines 16 – 43] issues :

The presentation layer of the application is written using this server-side API [Operations from the ViewControllerBaseImpl class are translated into corresponding operations from the XYZ class; col. 38, line 62 - col. 39, line 8];

The business logic layer [col. 14, lines 23 – 36] and data layer of the application is written using other appropriate server-side technologies [col. 48, lines 35 – 40];

The supporting infrastructure of this server-side API sends the application' user interface information to the client-side device for presentation [Operations from the ViewControllerBaseImpl class are translated into corresponding operations from the XYZ class; col. 38, line 62 - col. 39, line 8], handles communications problems [col. 26, lines 1 – 20], renders the application's user interface [clients 108, 110, and 112; col. 12, lines 16 – 43] and dispatches necessary user input events back to the server for processing [col. 36, lines 17 – 28].

32. As to claim 20, Bahrs teaches a method and system for delivering existing Java applications [col. 14, lines 23 – 36] over the network without modification of the application's code and without downloading the application to the client side [col. 33, line 65 – col. 34, line 5]:

The system re-implements standard Java GUI APIs such as AWT and Swing into a network-aware implementation without changing the APIs [col. 14, lines 36 – 65], enabling existing Java applications to run on this network-aware GUI API without modifications [col. 33, line 65 – col. 34, line 5];

The Java application runs completely on the server-side [a server 104; col. 12, lines 16 – 43], The network-aware API translates [Operations from the ViewControllerBaseImpl class are translated into corresponding operations from the XYZ class; col. 38, line 62 - col. 39, line 8] and delivers the application's presentation information into short messages [col. 41, line 66 – col. 42, line 19] based on formats such as XML [col. 17, lines 25 – 38] via a certain communication protocol [col. 14, lines 36 – 65];

The system's client-side program that understands these messages interprets and renders the user interface of the Java applications [If the major code for the TopEvent is message, then the message is displayed for the application (step 8418); col. 49, lines 25 – 33], essentially produces the look and feel of the application as if the entire application is running on the client device [col. 32, line 54 - col. 33, line 6];

The client program further interacts with the user, dynamically updates the user interface [If the major code for the TopEvent is message, then the message is displayed for the application (step 8418); col. 49, lines 25 – 33] and sends necessary user inputs back to server for processing [col. 36, lines 17 – 28];

The system's server program receives such user inputs [col. 26, lines 1 – 20], translates them into Java compatible user inputs, such as Java events [ViewEvents generated in the ViewControllers 12302 being handled by the ApplicationMediator 12304 and translated into appropriate RequestEvents; col. 65, lines 23 – 41], and further routes such user inputs to the Java application for processing [RequestEvents are passed on to the destination 12308 via the transported 12306; col. 65, lines 23 – 41];

The output of the Java application's processing is sent to the system's client program, which updates the user interface of the application [the return data may be sent to ViewController 502 to refresh the view displayed on the screen to the user; col. 16, line 57 – col. 17, line 15].

33. As to claim 21, Bahrs teaches a method and system for delivering the same application [col. 14, lines 23 – 36] over some network to multiple devices [col. 12, lines 3 – 16], maximizing the user experience of each device by best leveraging the specific capability of each device [col. 32, line 54 - col. 33, line 6], without rewriting the application specifically for each device [col. 33, line 65 – col. 34, line 5]:

The system runs the application on the server side [Enterprise JavaBean session bean instance from an application server using Java's RMI and Java's Reflection capabilities; col. 28, lines 43 - 67];

The system's server-side program translates [Operations from the ViewControllerBaseImpl class are translated into corresponding operations from the XYZ class; col. 38, line 62 - col. 39, line 8] and delivers the presentation information of the application into messages [col. 41, line 66 – col. 42, line 19] based on selected format such as XML [col. 17, lines 25 – 38], Such messages contain high level description of the application's user interface[Operations from the ViewControllerBaseImpl class are translated into corresponding operations from the XYZ class; col. 38, line 62 - col. 39, line 8], Such high level, instead of pixel level or graphics primitive level description, gives sufficient flexibility in interpretation without losing the gist of the information [col. 32, line 54 - col. 33, line 6];

Specific client-side programs are built for each specific client device leveraging the special features of each device [col. 32, line 54 - col. 33, line 6], This client-side program interprets these messages and renders the user interface of the applications in a way that is best optimized for the client device [If the major code for the TopEvent is message, then the message is displayed for the application (step 8418); col. 49, lines 25 – 33], delivering the best user experience possible on that specific client device [col. 32, line 54 - col. 33, line 6], The client-side program accepts user inputs, update the user interface [If the major code for the TopEvent is message, then the message is displayed for the application (step 8418); col. 49, lines 25 – 33], and sends necessary user inputs back to the server [col. 36, lines 17 – 28];

The system's server program receives such user inputs [col. 26, lines 1 – 20], translates them into application compatible user inputs [ViewEvents generated in the ViewControllers 12302 being handled by the ApplicationMediator 12304 and translated into appropriate RequestEvents; col. 65, lines 23 – 41], and further routes such user inputs to the application for processing [RequestEvents are passed on to the destination 12308 via the transported 12306; col. 65, lines 23 – 41];

The output of the application's processing is sent to the system's client program, which updates the user interface of the application accordingly [the return data may be sent to ViewController 502 to refresh the view displayed on the screen to the user; col. 16, line 57 – col. 17, line 15].

Claim Rejections - 35 USC § 103

34. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35. **Claims 9, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahrs in view of U.S. Patent No. 6,615,131 to Rennard et al. [hereinafter referred to as Rennard].**

36. As to claim 9, Bahrs teaches wireless devices [col. 15, lines 26 – 52] and multiple protocols [col. 15, lines 26 – 52] but does not specifically disclose the WAP protocol.

However, Rennard teaches Java user interfaces [col. 8, line 64 - col. 9, line 37] and the WAP protocol [Wireless Application Protocol; col. 7, line 64 – col. 8, line 13].

37. It would have been obvious to a person of ordinary skill in the art at the time of the invention to apply the teaching of the WAP protocol to the invention of Bahrs because this provides a navigational system and service that can be implemented using handheld devices with limited computational power, as well as devices with enhanced computational power [col. 2, lines 45 – 50 of Rennard].

38. As to claim 10, Bahrs as modified teaches the predetermined protocol is proprietary [col. 6, line 57 – col. 7, line 2 of Rennard].

39. As to claim 12, Bahrs as modified teaches the predetermined messaging format is proprietary [col. 6, line 57 – col. 7, line 2 of Rennard].

Conclusion

40. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,446,109 to Gupta discloses a computing environment that offers a level of decentralization wherein application server code resident on a remote application server can be distributed to a local server.

CONTACT INFORMATION

41. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Li B. Zhen
Examiner
Art Unit 2194

lbz

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER